

June 23, 2009

Charles L.A. Terreni Chief Clerk and Administrator South Carolina Public Service Commission Post Office Drawer 11649 Columbia, South Carolina 29211

Re:

Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.

Power Plant Performance Report

Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed is the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of May 2009.

Sincerely,

Zen S. Anthony (by dhs)

General Counsel

Progress Energy Carolinas, Inc.

LSA/dhs Enclosures

45612

c:

John Flitter (ORS)

The following units had no off-line outages during the month of May:

Brunswick Unit 1 Brunswick Unit 2 Robinson Unit 2 Mayo Unit 1

### Harris Unit 1

- A. <u>Duration:</u> The unit was taken out of service at 0:00 on April 18, and was returned to service at 22:18 on May 10, a duration of 550 hours and 18 minutes. The unit was offline for 238 hours and 18 minutes for the month of May.
- B. Cause: Scheduled Refueling Outage
- C. <u>Explanation</u>: The unit was taken out of service for a scheduled refueling outage in April, and planned outage activities continued into May. In addition to refueling, required maintenance and inspections were carried out during this outage.
- D. <u>Corrective Action:</u> Planned outage activities, including refueling, inspections, and maintenance were completed, and the unit was returned to service.

### Roxboro Unit 2

- A. <u>Duration:</u> The unit was taken out of service at 2:22 on May 17, and was returned to service at 15:30 on May 21, a duration of 109 hours and 8 minutes.
- B. Cause: Planned Outage for Air Heater Wash
- C. Explanation: The unit was taken out of service for a planned air heater wash.
- D. <u>Corrective Action:</u> Upon completion of the air heater wash, the unit was returned to service.

### Roxboro Unit 3

- A. <u>Duration:</u> The unit was taken out of service at 1:08 on May 10, and was returned to service at 9:58 on May 16, a duration of 152 hours and 50 minutes.
- B. Cause: Planned Outage for Air Heater Wash
- C. Explanation: The unit was taken out of service for a planned air heater wash.
- D. <u>Corrective Action:</u> Upon completion of the air heater wash, the unit was returned to service.

### Roxboro Unit 4

- A. <u>Duration:</u> The unit was taken out of service at 23:52 on April 17, and was returned to service at 0:15 on May 4, a duration of 384 hours and 23 minutes. The unit was offline for 72 hours and 15 minutes during the month of May.
- B. Cause: Boiler Inspection
- C. <u>Explanation</u>: The unit was taken out of service for a planned boiler inspection, other inspections, and maintenance.
- D. <u>Corrective Action:</u> Planned outage activities, including boiler inspection, periodic, preventative, and corrective maintenance were completed, and the unit was returned to service.

	Month of May 2009		Twelve Month	See Notes*	
MDC	938	MW	938	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	703,953	MWH	8,120,545	MWH	2
Capacity Factor	100.87	%	98.83	%	
Equivalent Availability	99.13	%	96.73	%	
Output Factor	100.87	%	101.51	%	
Heat Rate	10,445	BTU/KWH	10,391	BTU/KWH	
	MWH 	% of Possible	MWH 	% of Possible	
Full Scheduled	0	0.00	123,816	1.51	3
Partial Scheduled	6,073	0.87	33,500	0.41	4
Full Forced	0	0.00	93,206	1.13	5
Partial Forced	0	0.00	18,111	0.22	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	697,872		8,216,880		8

<sup>\*</sup> See 'Notes for Nuclear Units' filed with the January 2009 report.

<sup>\*\*</sup> Gross of Power Agency

	Month of May 2009		Twelve Month	See Notes*	
MDC	920	MW	930	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	613,351	MWH	6,394,197	MWH	2
Capacity Factor	89.61	%	78.49	%	
Equivalent Availability	87.92	%	77.97	%	
Output Factor	89.61	%	98.03	%	
Heat Rate	10,741	BTU/KWH	10,650	BTU/KWH	
	MWH 	% of Possible	MWH 	% of Possible	
Full Scheduled	0	0.00	1,336,484	16.41	3
Partial Scheduled	4,948	0.72	52,172	0.64	4
Full Forced	0	0.00	274,292	3.37	5
Partial Forced	77,760	11.36	147,492	1.81	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	684,480		8,146,070		8

<sup>\*</sup> See 'Notes for Nuclear Units' filed with the January 2009 report.

<sup>\*\*</sup> Gross of Power Agency

	Month of May 2009		Twelve Month	Twelve Month Summary		
MDC	900	MW	900	MW	1	
Period Hours	744	HOURS	8,760	HOURS		
Net Generation	441,456	MWH	7,250,752	MWH	2	
Capacity Factor	65.93	%	91.97	%		
Equivalent Availability	64.94	%	90.15	%		
Output Factor	97.00	%	101.20	%		
Heat Rate	10,728	BTU/KWH	10,758	BTU/KWH		
	MWH 	% of Possible	MWH 	% of Possible		
Full Scheduled	214,470	32.03	495,270	6.28	3	
Partial Scheduled	20,300	3.03	52,237	0.66	4	
Full Forced	0	0.00	224,235	2.84	5	
Partial Forced	0	0.00	9,042	0.11	6	
Economic Dispatch	0	0.00	0	0.00	7	
Possible MWH	669,600		7,884,000		8	

<sup>\*</sup> See 'Notes for Nuclear Units' filed with the January 2009 report.

<sup>\*\*</sup> Gross of Power Agency

Progress En	ergy Carolinas
Run Date	6/16/2009

# BASE LOAD POWER PLANT PERFORMANCE REPORT Robinson 2

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	Month of May 2009		Twelve Month	See Notes*	
MDC	710	MW	710	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	555,017	MWH	5,394,502	MWH	2
Capacity Factor	105.07	%	86.73	%	
Equivalent Availability	100.00	%	82.78	%	
Output Factor	105.07	%	103.93	%	
Heat Rate	10,688	BTU/KWH	10,757	BTU/KWH	
	MWH 	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	768,030	12.35	3
Partial Scheduled	0	0.00	38,498	0.62	4
Full Forced	0	0.00	247,080	3.97	5
Partial Forced	0	0.00	3,512	0.06	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	528,240		6,219,600		8

<sup>\*</sup> See 'Notes for Nuclear Units' filed with the January 2009 report.

	Month of May 2009		Twelve Month	Twelve Month Summary		
MDC	742	MW	742	MW	1	
Period Hours	744	HOURS	8,760	HOURS		
Net Generation	408,322	MWH	3,954,797	MWH	2	
Capacity Factor	73.96	%	60.84	%		
Equivalent Availability	99.54	%	86.66	%		
Output Factor	73.96	%	68.86	%		
Heat Rate	10,513	BTU/KWH	10,654	BTU/KWH		
	MWH 	% of Possible	MWH 	% of Possible		
Full Scheduled	0	0.00	706,929	10.88	3	
Partial Scheduled	1,762	0.32	77,161	1.19	4	
Full Forced	0	0.00	49,615	0.76	5	
Partial Forced	773	0.14	33,138	0.51	6	
Economic Dispatch	141,191	25.58	1,678,281	25.82	7	
Possible MWH	552,048		6,499,920		8	

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2009 report.

<sup>\*\*</sup> Gross of Power Agency

	Month of May 2009		Twelve Month	Twelve Month Summary		
MDC	662	MW	667	MW	1	
Period Hours	744	HOURS	8,760	HOURS		
Net Generation	324,382	MWH	4,418,014	MWH	2	
Capacity Factor	65.86	%	75.58	%		
Equivalent Availability	84.08	%	88.22	%		
Output Factor	77.18	%	84.94	%		
Heat Rate	8,916	BTU/KWH	8,921	BTU/KWH		
	MWH 	% of Possible	MWH 	% of Possible		
Full Scheduled	72,246	14.67	373,403	6.39	3	
Partial Scheduled	2,695	0.55	38,079	0.65	4	
Full Forced	0	0.00	225,127	3.85	5	
Partial Forced	3,468	0.70	51,821	0.89	6	
Economic Dispatch	89,737	18.22	738,908	12.64	7	
Possible MWH	492,528		5,845,110		8	

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2009 report.

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# BASE LOAD POWER PLANT PERFORMANCE REPORT Roxboro 3

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	Month of May 2009		Twelve Month	Twelve Month Summary		
MDC	695	MW	701	MW	1	
Period Hours	744	HOURS	8,760	HOURS		
Net Generation	261,104	MWH	4,228,028	MWH	2	
Capacity Factor	50.50	%	68.87	%		
Equivalent Availability	77.32	%	93.64	%		
Output Factor	63.55	%	71.26	%		
Heat Rate	10,910	BTU/KWH	10,904	BTU/KWH		
	MWH 	% of Possible	MWH 	% of Possible		
Full Scheduled	106,219	20.54	188,528	3.07	3	
Partial Scheduled	1,815	0.35	98,442	1.60	4	
Full Forced	0	0.00	11,996	0.20	5	
Partial Forced	9,266	1.79	91,097	1.48	6	
Economic Dispatch	138,676	26.82	1,521,480	24.78	7	
Possible MWH	517,080		6,139,300		8	

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2009 report.

	Month of May 2009		Twelve Month	Twelve Month Summary		
MDC	698	MW	698	MW	1	
Period Hours	744	HOURS	8,760	HOURS		
Net Generation	356,251	MWH	4,314,528	MWH	2	
Capacity Factor	68.60	%	70.56	%		
Equivalent Availability	90.12	%	93.67	%		
Output Factor	75.98	%	74.94	%		
Heat Rate	11,978	BTU/KWH	10,706	BTU/KWH		
	MWH 	% of Possible	MWH 	% of Possible		
Full Scheduled	50,431	9.71	299,151	4.89	3	
Partial Scheduled	0	0.00	21,964	0.36	4	
Full Forced	0	0.00	0	0.00	5	
Partial Forced	864	0.17	66,014	1.08	6	
Economic Dispatch	111,766	21.52	1,412,823	23.11	7	
Possible MWH	519,312		6,114,480		8	

<sup>\*</sup> See 'Notes for Fossil Units' filed with the January 2009 report.

<sup>\*\*</sup> Gross of Power Agency

Plant	Unit	Current MW Rating	January 2008 - December 2008	May 2009	January 2009 - May 2009
Asheville	1	191	67.84	61.33	75.76
Asheville	2	185	64.83	53.81	64.03
Cape Fear	5	144	69.98	72.30	73.45
Cape Fear	6	172	61.62	39.33	60.24
Lee	1	74	62.88	30.57	43.95
Lee	2	74 77	50.49	24.25	38.40
Lee	3	246	38.21	63.90	63.29
Mayo	1	742	62.59	73.96	56.30
Robinson	1	174	65.88	58.75	65.19
Roxboro	1	369	69.79	76.44	86.01
Roxboro	2	662	78.24	65.86	77.04
Roxboro	3	695	66.00	50.50	68.17
Roxboro	4	698	70.32	68.60	68.31
Sutton	1	93	46.46	0.28	29.69
Sutton	2	93 104	55.49	25.37	40.35
Sutton	3	403	56.73	53.14	50.88
	3 1	48	42.83	5.11	15.21
Weatherspoon	2	49	42.03 41.04	5.11 4.42	19.91
Weatherspoon	3	49 75		13.87	23.63
Weatherspoon	3	75	56.58	13.87	23.03
Fossil System Total		5,201	64.48	58.48	63.62
Brunswick	1	938	85.33	100.87	101.59
Brunswick	2	920	95.43	89.61	57.59
Harris	1	900	98.94	65.93	85.58
Robinson Nuclear	2	710	87.02	105.07	105.27
Nuclear System Total		3,468	91.90	89.67	86.52
Total System		8,669	75.45	70.96	72.78

## Amended SC Fuel Rule Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of  $\geq$  92.5% during the 12 month period under review. For the test period April 1, 2009 through May 31, 2009, actual period to date performance is summarized below:

Period to Date: April 1, 2009 to May 31, 2009

## Nuclear System Capacity Factor Calculation (Based on net generation)

A. Nuclear system actual generation for SCPSC test period	A=	3,860,710 MWH
B. Total number of hours during SCPSC test period	B =	1,464 hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C =	3,468 MW
D. Reasonable nuclear system reductions (see page 2)	D =	1,299,076 MWH

A. SC Fuel Case nuclear system capacity factor: [(A + D) / (B + C)] \* 100 = 101.6%

#### NOTE:

If Line Item E > 92.5%, presumption of utility's minimum cost of operation. If Line Item E < 92.5%, utility has burden of proof of reasonable operations.

# Amended SC Fuel Rule Nuclear System Capacity Factor Calculation Reasonable Nuclear System Reductions

Period to Date: April 1, 2009 to May 31, 2009

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	920 MW	900 MW	710 MW	3,468 MW
Reasonable refueling otuage time (MWH)	0	632,331	495,270	0	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	35	77,759	0	22,048	
Reasonable coast down power reductions (MWH)	0	0	24,856	0	
Reasonable power ascension power reductions (MWH)	0	20,440	20,300	0	
Prudent NRC required testing outages (MWH)	6,037	0	0	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	0	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	6,072	730,530	540,426	22,048	
Total reasonable outage time exclusions [carry to Page 1, Line D]					1,299,076